
Beneficial Use Reconnaissance Program

2002 Annual Work Plan

For Wadeable (Small) Streams

Idaho Department of Environmental Quality



**State Office of Technical Services
for DEQ Surface Water Program**

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Beneficial Use Reconnaissance Program
2002 Annual Work Plan
For Wadeable (Small) Streams

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Abstract

In 1993, the Idaho Division (now Department) of Environmental Quality (DEQ) embarked on a pilot monitoring program, the Beneficial Use Reconnaissance Project (now Beneficial Use Reconnaissance Program [BURP]) aimed at integrating biological monitoring with physical habitat assessment to characterize stream integrity and the quality of Idaho's waters. The program has been implemented statewide since 1994. DEQ's past monitoring and assessment practices and the U.S. Environmental Protection Agency's rapid bioassessment protocols (RBPs) provided the foundation for BURP monitoring protocols. The purpose of BURP is to assist in determining the existing uses and beneficial use support status of Idaho's water bodies. The purposes of an annual BURP work plan are to provide background information about the program and list program objectives for a specific year. A companion to this work plan, the *Beneficial Use Reconnaissance Program Field Manual for Wadeable (Small) Streams* (Beneficial Use Reconnaissance Program Technical Advisory Committee *In preparation*), describes the methods used in BURP. The objectives for BURP in 2002 are to: 1) establish and monitor long-term reference trend sites; 2) fill in missing data gaps; and 3) complete the stated pilot projects. The Boise, Coeur d'Alene, Idaho Falls, Lewiston, Pocatello, and Twin Falls DEQ Regional Offices will each have a sampling crew for the 2002 field season. The field season will begin July 1 and end September 27, 2002. Each crew will sample approximately 50 stream sites. Current estimates are that DEQ will monitor 434 BURP stream sites during the 2002 season. Pilot projects include a stream reference condition variability study, centralized crew training, stream habitat type determination, measuring channel shape, additional canopy cover samples, and an additional macroinvertebrate sample to increase the sample size. The 2002 variability study will analyze interannual variability of field protocols and assessment index results and evaluate differences after implementing centralized crew training. The study will also support establishing a long-term reference trend network.

Introduction

Regulatory Framework (Clean Water Act)

The history of the current regulatory framework for clean water programs in the United States began with the Water Pollution Control Act of 1948 (Public Law 80-845)(Water Environment Federation 1987). This was the first comprehensive statement of federal interest in clean water programs. In 1972, the U.S. Congress passed Public Law 92-500, the Federal Water Pollution Control Act, more commonly known as the Clean Water Act (CWA) (Water Environment Federation 1987). The goal of the act was to restore and maintain the chemical, physical, and biological integrity of the nation waters (Water Environment Federation 1987). One of the goals of the 1977 amendment was protecting and managing waters to insure swimmable and fishable conditions. This goal, along with the 1972 goal to restore and maintain chemical, physical, and biological integrity, relates water quality to more than just chemical characteristics. The CWA and the programs it generated have changed over the years as experience and perceptions of water quality have changed. The CWA has been amended 15 times, most significantly in 1977, 1981, and 1987.

The federal government, through the U.S. Environmental Protection Agency (EPA), assumed the dominant role in defining and directing water pollution control programs across the nation. The Department of Environmental Quality (DEQ) implements the CWA in Idaho while the EPA works with Idaho water quality programs and certifies the fulfillment of CWA requirements and responsibilities.

DEQ is charged (Clean Water Act, CFR, 39:3601) with providing consistent water body monitoring and assessment methods (Grafe et al. 2002). BURP procedures and DEQ monitoring protocols provide this consistency. The assessment methods (Grafe et al. 2002) determine if a water body is supporting or not supporting beneficial uses (see Table 1) such as aquatic life. The Idaho *Water Quality Standards and Wastewater Treatment Requirements* are the rules concerning beneficial uses and associated criteria (State of Idaho, Administrative Rules, 58.01.02). The Idaho water quality standards consist of three parts: 1) beneficial uses; 2) numeric and narrative criteria; and 3) antidegradation. Beneficial uses are described in more detail below.

History of the Beneficial Use Reconnaissance Program

In 1993, DEQ embarked on a pilot project known as the Beneficial Use Reconnaissance Project (now known as the Beneficial Use Reconnaissance Program) aimed at integrating biological monitoring with physical habitat assessment to characterize stream integrity and the quality of the water (McIntyre 1993). This project was also developed to meet the CWA requirements of monitoring and assessing biology and developing biocriteria. This pilot, named the Beneficial Use Reconnaissance Project (BURP), relied heavily on protocols for monitoring physical habitat and macroinvertebrates developed by Idaho State University and DEQ in the early 1990s. It closely followed the *Rapid Bioassessment Protocols for Use in Streams and Rivers: Benthic Macroinvertebrates and Fish* developed by EPA (Plafkin et al. 1989). Idaho's surface water quality monitoring is based on watersheds. The watersheds are grouped into hydrologic units, identified by hydrologic unit codes (HUCs) (Figure1).

This document was an attempt to use the best science and understanding available to characterize water quality based on biological communities and their attributes. Because of the success of the 1993 pilot, DEQ decided to expand the project statewide in 1994 (McIntyre 1994; Steed and Clark 1995). BURP has remained in use statewide since 1994 (Idaho Division of Environmental Quality 1995; Beneficial Use Reconnaissance Project Technical Advisory Committee 1996, 1997, 1998, 1999). BURP is the ambient monitoring strategy for the State of Idaho at this time. BURP monitoring was greatly reduced in 2000 in order to revise the monitoring and assessment documents and to begin assessment of collected data. Grafe et al. 2002 has created a final assessment document for the purpose of assessing these data. At the end of the 2000 BURP season a total of 4160 stream sites had been sampled in Idaho, making us a national leader in monitoring for bioassessment. Also in 2000, the *Beneficial Use Reconnaissance Project* was renamed the *Beneficial Use Reconnaissance Program* to emphasize its importance as a permanent DEQ monitoring program.

Overview of Rapid Bioassessment

Barbour et al. (1999) defines biological assessment as “an evaluation of the condition of a waterbody using biological surveys and other direct measurements of the resident biota in surface waters.” The concept of “rapid bioassessment” resulted from a report by EPA, which suggested a restructuring of monitoring programs at that time (U.S. Environmental Protection Agency 1987). EPA’s answer to this suggestion resulted in the first Rapid Bioassessment Protocols (RBPs) being published (Plafkin et al. 1989). RBPs were found to be faster, and thus cheaper, than previous monitoring techniques.

The RBPs have been used nationwide by a wide variety of federal agencies, most states and other monitoring entities and have improved over the years (Barbour et al. 1999). Idaho’s BURP uses many of the RBP methods and makes modifications to fit Idaho’s landscape and DEQ’s objectives (Beneficial Use Reconnaissance Project Technical Advisory Committee 1999). A more detailed review of RBPs can be found in Idaho’s 1998 303(d) list report (Idaho Division of Environmental Quality 1998).

Purposes of the BURP Annual Work Plans

The purposes of BURP’s annual work plans are to provide background information about BURP and list yearly objectives. Annual work plans also help provide consistency within the program and serve as a substantial portion of BURP’s quality assurance/quality control (QA/QC) program. The annual work plan will give the monitoring objectives for the year. The plan gives the priorities for the watersheds and streams to be sampled. Any pilot projects planned for the year are described as well as any other special considerations that may be unique to a given year. Clark (2001) provided the first work plan for BURP which did not contain the actual field methods used. The new companion to this work plan is the *Beneficial Use Reconnaissance Program Field Manual for Wadeable (Small) Streams* (Beneficial Use Reconnaissance Program Technical Advisory Committee 2002a), which describes the field methods used in detail.

Beneficial Uses of Water in Idaho

The beneficial uses of water in Idaho are defined as “any of the various uses of water, including, but not limited to, aquatic biota, recreation, water supply, wildlife habitat, and aesthetics” (Grafe et al. 2002). These beneficial uses are listed in Table 1. Since 1993, the purpose of BURP has been to establish existing uses and help determine the status of these beneficial uses (McIntyre 1993, 1994; Idaho Division of Environmental Quality 1995; Beneficial Use Reconnaissance Project Technical Advisory Committee 1996, 1997, 1998, 1999).

Table 1. The beneficial use categories of Idaho water as specified in the Idaho water quality standards (State of Idaho, Administrative Rules, 58.01.02).

Beneficial Use Category	<u>Beneficial Uses</u>
Aquatic Life Support	Cold water biota, salmonid spawning, seasonal cold water biota, warm water biota, modified
Contact Recreation	Primary (swimming), secondary (boating)
Water Supply	Domestic, agricultural, industrial
Other	Wildlife habitat, aesthetics, special resource waters

Beneficial Use Reconnaissance Program (BURP) Support Status

The purpose of BURP is to collect and measure key water quality variables that aid DEQ in determining the beneficial use support status of Idaho’s water bodies. The determination will tell if a water body is in compliance with water quality standards and criteria and if the water is meeting reference conditions. Reference conditions are those that fully support applicable beneficial uses with little affect from human activity and represent the highest level of support attainable, by bioregion. BURP provides the data used in the *Water Body Assessment Guidance* (Grafe et al. 2002). For more details on how assessments are done, data representativeness and handling, as well as other policies, see Grafe et al. (2002).

Currently, DEQ recognizes three categories of beneficial use support status: fully supporting, not fully supporting, and not assessed. “Fully supporting” means that the water body is in compliance with water quality standards and criteria, and meeting the reference conditions for all designated and existing beneficial uses as determined through the *Water Body Assessment Guidance* (Grafe et al. 2002). Not fully supporting refers to a water body that is not in compliance with water quality standards or criteria, or not meeting reference conditions for each beneficial use as determined through the *Water Body Assessment Guidance* (Grafe et al. 2002). The “not assessed” category describes water bodies that have been monitored to some extent, but are missing critical information needed to complete an assessment. Not assessed can also mean that DEQ has not visited the water body and has no information on it.

Annual Work Plan, 2002 Field Season

Objectives

The objectives for BURP for the 2002 field season are:

1. establish and monitor long-term reference trend sites,
2. fill in missing data gaps, and
3. to complete several pilot projects.

Several authors (Bahls et al. 1992; Grafe 1999; Harrelson et al. 1994; King 1993; McGuire 1992, 1995) have pointed out the need for long-term monitoring data of least-impacted (reference) sites. The purpose of long-term monitoring efforts is to help determine the range of natural variation within a water body (Barbour et al. 1999). For several years, BURP monitoring has placed emphasis on least-impacted (reference) conditions (McIntyre 1994; Idaho Division of Environmental Quality 1995; Beneficial Use Reconnaissance Project Technical Advisory Committee 1996, 1997, 1998, 1999).

DEQ is drafting a statewide monitoring strategy that may incorporate targeted, census, and probabilistic sampling as a means to describe water quality conditions in Idaho. This strategy will consider resources available to implement. This draft strategy will be released for public comment in July 2002.

The DEQ monitoring strategy will tie into the EPA development of a Consolidated Assessment and Listing Methodology (CALM) which has the purpose of improving state monitoring and assessment programs (U.S. Environmental Protection Agency 2001). Six major parts make up CALM: 1) making decisions on attainment/non-attainment of state water quality standards (covering listing/de-listing decisions); 2) designing comprehensive state monitoring networks that support attainment decisions; 3) reporting and presentation of data; 4) upgrading elements of state monitoring programs; 5) identifying causes and sources of impairment; and 6) addressing issues such as pathogens, nutrients, sedimentation, and fish advisories.

The overall goal of the CALM is to both strengthen and streamline the water quality monitoring, assessment and listing process for purposes of both sections 305(b) and 303(d) of the Clean Water Act. CALM will provide guidance on the monitoring data and assessment methods needed to support decision making, and on communicating water quality conditions to the public. The benefits of the CALM are, therefore, increased monitoring on all waters, improved decision making on water quality standards attainment and listing impaired waters, and clearer communication to the public on water quality issues in each state and across the nation (U.S. Environmental Protection Agency 2001).

Special Considerations for 2002 Field Season

It appears to be a near normal water year for Idaho (Natural Resources Conservation Service 2002), so no special considerations for low stream flows are anticipated. The previous two years have been low flow years in most of Idaho (Natural Resources Conservation Service 2001).

Streams and Stream Sample Sites

The Boise, Coeur d'Alene, Idaho Falls, Lewiston, Pocatello, and Twin Falls DEQ Regional Offices will each have a sampling crew for the 2002 field season. Contact information for the DEQ Regional Office BURP Coordinators is given in Figure 2. The previous DEQ Regional Office designations (for example NIRO) as well as the current DEQ Regional Office designations (CDA) are given for reference. Figure 2 also shows the approximate area of field operations for each office and coordinator. The field season will begin July 1 and end September 27.

Statewide approximately 364 sites will be monitored. The BURP sites will include 40 samples collected from reference sites (five sites in four bioregions, two visits during 2002). The core reference stations will be sampled on a regular basis to help establish a range of conditions and trends. Crews will typically sample lowland and rangeland areas earlier in the season and work upwards (increase elevation) toward forested streams to avoid problems encountered with early season runoff (snowmelt). The plan is to sample each stream at what are summer low flow conditions. A short narrative of what each DEQ Regional Office plans for the 2002 field season is given below. Table 2 contains a tabular list of projected BURP sites and samples for the 2002 field season.

- **Boise Regional Office** – The Boise Regional Office has several high priority monitoring objectives for the 2002 field season: North Fork Payette River and Weiser River watersheds plus trend monitoring sites. The nine trend monitoring sites have been sampled on an annual basis since 1994.
- **Coeur d'Alene Regional Office** – Regional Office personnel estimate they will sample about 43 sites this field season including the monitoring of three reference sites. The Regional Office will concentrate on the Upper Kootenai, the Moyie, Clark Fork, and Hangman Creek watersheds. They plan to collect about 60 bacteria samples (including some that exceed the threshold) and do not expect the need to sample any additional fish sites.
- **Idaho Falls Regional Office** – The Idaho Falls Regional Office plans to concentrate on the Salmon Basin for the 2002 field season. Approximately 150 sites are planned for sampling and electrofishing is planned at each site. Three reference trend sites will be sampled. It is estimated that 175 bacteria samples will be taken.
- **Lewiston Regional Office (including the Grangeville Satellite Office)** – The Grangeville Satellite Office will be sampling in the Palouse (approximately 18 sites), Main stem Clearwater (including the Potlatch and Lolo drainages, approximately 20 sites), and the Lower Snake River (one site). There will be approximately six trend sites located throughout the Upper North Fork Clearwater, Lochsa, and Salmon River Drainages. Six reference trend sites will be sampled. Total sample sites will be about 45 and it is estimated that 30-40 bacteria samples will be collected. The crew plans to electrofish all 2002 BURP sites with no additional electrofishing anticipated.
- **Pocatello Regional Office** – Pocatello will sample about 60 stream sites in four main watersheds: Bear, Blackfoot, Portneuf and Upper Snake. Three reference trend sites will be sampled. Most of the sites represent repeat monitoring sites. Electrofishing will be conducted on over 20 sites,

depending on what other data exists from other agencies. Bacteria will be sampled in about half of the sites and follow up monitoring where needed.

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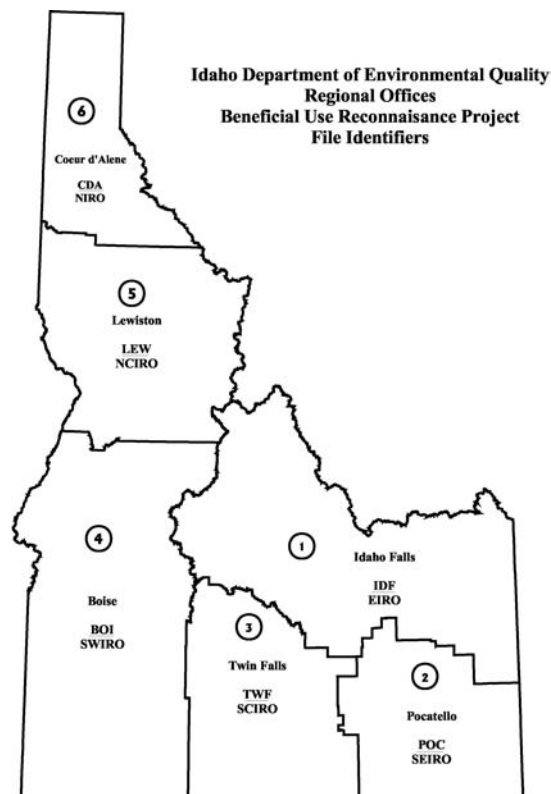


Table 2. Estimated number of stream site watersheds to be monitored during the 2002 Beneficial Use Reconnaissance Program (BURP) field season. Total number of bacteria samples to be taken and additional fish assemblage sites to be sampled are included.

Regional Office	Watersheds	Total # Sites	Estimated # Bacteria Samples	Estimated # Additional fish Sites
Boise	North Fork Payette River Weiser River Trend sites Reference Trend Total	22 33 9 6 70	Those sites as determined necessary by the screening process	0
Coeur d'Alene	U. Kootenai Moyie Clark Fork Reference Trend Total	5 20 15 3 43	60	0
Idaho Falls	Salmon Basin Reference Trend Total	150 3 153	175	0
Lewiston	Palouse River Clearwater R. Lower Snake R. Reference Trend Total	18 20 1 6 45	40	0
Pocatello	Bear River Blackfoot River Portneuf River Upper Snake Reference Trend Total	30 12 12 6 3 63	30	20
Twin Falls	Salmon Falls Raft Goose Upper Snake Rock Camas Bruneau Reference Trend Total	43 1 3 2 5 1 3 58	50	0
Totals for State (min.)	-----	434	355	20

- Twin Falls Regional Office – The work plan for the 2002 season in the Twin Falls region will focus on supporting the Salmon Falls Subbasin Assessment/Total Maximum Daily Load (SBA/TMDL) (HUC 17040213) which is due in 2006. Thirty sites have been selected in this drainage for sampling using the BURP's protocols for site selection. Many of the sites that have been selected will be repeat sites that were sampled in 1995, 1996, and 1997. An additional 20 sites will be sampled in Shoshone Creek (HUC 17040210), Salmon Falls Creek (HUC 17040211), Rock Creek (17040220), and Cold Creek (HUC 17040221). The sampling will include aquatic macroinvertebrates, periphyton, habitat, and fish data. In addition, three reference trend sites will be sampled. The total number of sites estimated to be sampled during the 2002 field season is fifty. The Twin Falls Regional Office will also place thermographs in Shoshone Creek, Salmon Falls Creek, Rock Creek and Cold Creek.

Pilot Projects

The DEQ BURP Technical Advisory Committee pilot projects use sampling methods to see if the methods achieve the needed data and information for a particular objective. The results of pilot projects are evaluated for utility in the statewide BURP sampling efforts. Six pilot projects are scheduled for the 2002 field season.

Pilot Project #1 - Reference Variability Study

This project is described in detail in Fore and Grafe (2001). Phase I of the study was launched in 2001 to evaluate variability associated with year-to-year (interannual) sampling, index period, and data collection. Phase II of the study will support establishing core reference stations in each bioregion and analyze interannual variability after implementation of centralized crew training and protocol changes.

Twenty sites will be sampled representing the Northern Mountains, Central and Southern Mountains, Basin bioregions. Most of the sites sampled in 2001 will be resampled in 2002. Each site location will be visited twice during the 2002 field season. For the initial and repeat visits, different crews will collect data. Consequently, a total of 40 samples will be collected from the reference sites.

Data collection will be done following the BURP Field Manual (Beneficial Use Reconnaissance Program Technical Advisory Committee 2002a).

Pilot Project #2 – Centralized Crew Training

DEQ is conducting a centralized crew training to better standardize crew training. In June, one BURP coordinator, Steve Robinson (Idaho Falls). The training will last for a week and cover all protocols. Crew will practice on forested and rangeland streams located throughout the Idaho Falls region. Training will follow the outline presented in Beneficial Use Reconnaissance Program Technical Advisory Committee (2002b).

The training follows our “train the trainers” workshop held in May. The training will consist of an intense eight days. The crews will see demonstrations of the individual methods and the entire process. Following the demonstrations, the crews will practice what they have learned several times.

Pilot Project #3 – Stream Habitat Type

The stream habitat type determination has had low precision in the past. We have decided to measure the habitats simply by either “fast” or “slow” this year on each tenth site. We will continue to categorize the habitats by riffle, run, glide, and pool at each site.

Pilot Project #4 – Measuring Channel Shape

Channel shape will be measured rather than estimated, as in the past. This will change the qualitative estimate to a quantitative measurement, which will be compared to a table of bank angles for the habitat score.

Pilot Project #5 – Canopy Cover

In response to concerns that our measurement of canopy cover may be inadequate, we plan to take additional measurements at the width/depth transects. These would be done in addition to those measurements now taken at the macroinvertebrate sampling transects. This will be done at every tenth site.

Pilot Project #6 – Macroinvertebrate Sample Size

DEQ has received some criticism concerning the relatively small sample size for macroinvertebrate samples. During the 2001 field season, a fourth sample was collected on ten percent of the sites (Clark 2001). At present, we do not have the results of this pilot project. Some BURP coordinators will take a fourth sample this field season when resampling sites, which had less than 150 individuals when previously sampled.

Other Monitoring Projects

The EPA is conducting a study in the western United States (EPA Regions 8, 9, and 10) that will advance the science of ecological monitoring and demonstrate techniques for regional-scale assessment of the condition of ecological systems. The objectives of this project, called Environmental Monitoring and Assessment Program (EMAP), the Western Pilot Study, are to “develop the monitoring tools (biological indicators, stream survey design, estimates of reference condition) necessary to produce unbiased estimates of the ecological condition of surface waters across a large geographic area (or areas) of the west; and demonstrate those tools in a large-scale assessment” et al. (2001a). Unbiased estimates require either a complete census of the ecological resources through remote sensing or a rigorous probability survey design that allows extrapolation of results from the sample to the entire resource of interest. Both strategies are used in the EMAP Western Pilot Study: a census for land cover/land use and probability survey for other resources. The study will use a random or stratified random sampling scheme and a rich suite of indicators that include both biota and morphological aspects. See Tonnig (1999) for a good overview of the Western Pilot Study. Hughes et al. (2000) provides a current overview of the survey in the United States.

Peck et al. (2001a) provides a detailed field manual for the EMAP Western Pilot Study. The manual describes guidelines and standardized procedures for evaluating the biological integrity of surface waters of streams. The document contains the EMAP surface water field operations and bioassessment methods for evaluating the health and biological integrity of wadeable freshwater streams in the Western Pilot Study area.

Each western state participating in the study will sample approximately 50 sites over a four-year period. Idaho will sample about 15 sites per year under this program. The sampling will take place during July and August. Cynthia Grafe is the DEQ program contact and Mark Shumar is in charge of field monitoring for EMAP.

In addition, this year will begin the first of a four-year project called REMAP (Peck et al. 2001b) which will deal with larger water bodies in Idaho. Bill Clark will be in charge of the field monitoring for REMAP. The sampling will take place by raft during August and September. Electrofishing will be conducted by the U.S. Geological Survey. Approximately 20 sites will be sampled in the Basins bioregion (Snake River Basin/High Desert and Northern Basin and Range ecoregions) in the southern part of Idaho.

Quality Assurance/Quality Control (QA/QC)

The quality assurance/quality control (QA/QC) aspects of BURP are critical to its success and have a direct relationship on the utility, repeatability, and defensibility of the data obtained by DEQ’s sampling efforts. QA/QC are included in every aspect of BURP, including:

- preparing monitoring documents;
- educating and training BURP coordinators and crews (Beneficial Use Reconnaissance Program Technical Advisory Committee in preparation);
- preparing, calibrating, and maintaining field equipment;

- taking samples;
- conducting independent field audits, writing subsequent reports, and following up on issues raised in the audits;
- identification of biological (macroinvertebrate, fish, algae, amphibian) specimens;
- housing voucher specimens in a museum collection (Clark 2000); handling data; checking individual field sheets (Steed et al 2002);
- entering, analyzing, and managing data (Radian International 1999);
- writing reports; and all other aspects of using the data.

Safety Considerations

Safety will remain the priority for all BURP sampling conducted in 2002 and in the future. DEQ takes safety issues very seriously. Major safety aspects of the monitoring are discussed in the *BURP Field Manual for Wadeable (small) Streams* (Clark in preparation). The crews will also take appropriate measures to decontaminate waders, equipment, and vehicles so as to not transfer/introduce weed seeds, aquatic diseases, or other aquatic organisms from one water or watershed to another. In general, DEQ requires that all staff and crewmembers dealing with BURP receive first aid and CPR training or are hired with these current certifications. DEQ requires that vehicles are stocked with emergency items, including a first aid kit, fire extinguisher, and other safety items. Safety issues concerning working around water and using sampling equipment are discussed in the BURP Field Manual (Clark in preparation), the BURP training manual (Beneficial Use Reconnaissance Program Technical Advisory Committee 2002), and in training classes. Each BURP crew is responsible for its own safety. DEQ will provide the tools and training necessary for crews to conduct their field work in a safe manner.

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Table 3. List of Acronyms

BURP	Beneficial Use Reconnaissance Program
CALM	Consolidated Assessment and Listing Methodology
CDA	Coeur d’Alene
CFR	Code of Federal Register
CPR	Cardiopulmonary Resuscitation
CWA	Clean Water Act, Federal
DEQ	Department of Environmental Quality, State of Idaho
EIRO	East Idaho Regional Office (now Idaho Falls Regional Office), DEQ
EMAP	Environmental Monitoring and Assessment Program
EPA	Environmental Protection Agency
HUC	Hydrologic Unit Codes
NCIRO	North Central Idaho Regional Office (now Lewiston Regional Office), DEQ
NIRO	North Idaho Regional Office (now Coeur d’Alene Regional Office), DEQ
QA/QC	Quality Assurance/Quality Control
RBP	Rapid Bioassessment Protocols
REMAP	River Environmental Monitoring and Assessment Program
SBA	Subbasin Assessment
SCIRO	South Central Idaho Regional Office (now Twin Falls Regional Office), DEQ
SEIRO	Southeast Idaho Regional Office (now Pocatello Regional Office), DEQ
SWIRO	Southwest Idaho Regional Office (now Boise Regional Office), DEQ
TAC	Technical Advisory Committee
TMDL	Total Maximum Daily Load

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